

# Apram Ahuja

Mathematics Major | Data Science Minor @University of British Columbia

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## Technical Skills

**Languages:** Java, C, JavaScript, C++, C#, PHP, Python, WebGL, Three.js, R, Racket, HTML/CSS

**Testing & Database:** Git, OracleSQL, MySQL, MongoDB, Tableau, Excel, UNIX, Linux, JUnit, GDB

**Frameworks & Libraries:** React.js, Node.js, Taipy, Seaborn, PyTorch, TensorFlow, Matplotlib, PowerBI

## Education

**University of British Columbia, Vancouver**

09/2021 - 08/2025

Bachelor of Science in Mathematics & Minor in Data Science

- GPA: 4.0/4.33
- Relevant Coursework: Applied Machine Learning, Relational Database Management, Intermediate Algorithm Design, Object Oriented Programming, Software Engineering, Quantitative Economic Models with Data Science, Computer Graphics

## Certifications

- Advanced SQL, Kaggle Learning

10/2023

  - Applied SQL skills, including nested queries for effective analysis of complex datasets
  - Utilized normalization techniques for future-proofing datasets
- Intermediate Machine Learning, Kaggle Learning

08/2023

  - Proficient in Python for data analysis and machine learning.
  - Applied Pandas for data manipulation, and created data visualizations using Matplotlib, Seaborn, and Plotly.
  - Explored deep learning models like XGBoost, and CNN using Tensorflow and natural language processing models such as sentiment analysis, spam filters
- Fundamentals of Node.js, Progate

08/2020

  - Proficient in Node.js core APIs, event loops, and desktop application development
  - Focus on HTTP/HTTPS protocols, streams, authentication, and security

## Technical Projects

**PlantWhisperer: nwHacks2024 Winner** | Taipy, MongoDB, CSS, OpenAI

01/2024

- Developed a web application using an open-source Python library Taipy within 24 hours for real-time crop disease diagnosis, and treatment recommendations
- Integrated Taipy and MongoDB with GPT-3, PlantID API through API design enhancing user queries using data migration and improving overall user experience
- Utilized Python libraries such as Matplotlib, Pillow, and other technologies to create a robust solution for sustainable plant management using just a click of a plant
- Documented user-friendly setup for easy web app access

**Zoo Management System** | PHP, CSS, Oracle SQL

05/2023 - 07/2023

- Designed a database warehousing application for zoo organization to manage inventory and perform data analysis in real-time using PHP dashboard accessing data from Oracle, used in to generate business insights and enhancing operational efficiency
- Successfully modeled data using custom and nested queries with JOINS, HAVING, and GROUP BY in OracleSQL, enabling users to extract meaningful data resulting in actionable decisions

**Pro Bono Services Consultancy: ASA DataFest 2023** | Python, BERTopic, TimeSeries 04/2023

- Pre-processed a large dataset using Python Pandas and Scikit-Learn for the American Statistical Society's Pro Bono Services Consultancy
- Analyzed the Geospatial data of US state's attorney-to-client ratio over 6 years by geospatial modeling through time-enabled map using Plotly and TimeSeries
- Applied unsupervised Natural Language Processing tool BERTopic to identify major conversation clusters, resulting in a better understanding of large datasets

**Online Banking Desktop Application** | Java, JUnit, JSwing, JSON 01/2022 - 04/2022

- Developed and tested an object-oriented banking program with Java, JUnit, JSON persistence
- Implemented a GUI using JSwing to facilitate user interaction within a user-friendly banking UI
- Implemented an event log and save/load functionality using JSON, resulting in an efficient data storage of activities associated with the users

**Predicting Life Expectancy of Nations** | R, K-Nearest Neighbors, TidyVerse 11/2021 - 12/2021

- Analyzed data with over 3500 observations and 19 variables using R's TidyVerse to clean and split the dataset into testing and training sets
- Trained a predictive model by fitting KNN regression model for the life expectancy of nations, achieving a low RMSE of 5.71 years

## Work Experience

**Operation Staff** 08/2022 - Present  
UBC - Athletics & Recreation

- Resolved payment discrepancies for 500+ student recreation accounts, with precision, applying problem-solving skills, resulting in a decrease in billing errors and improved customer satisfaction
- Streamlined and optimized daily operation of 10-20 AV technology and equipment, ensuring seamless student experience by minimizing technical issues and ensuring 100% equipment functionality

**Orientation Leader** 08/2023  
UBC Centre for Student Development and Leadership

- Cultivated a sense of community among 30-40 first-year students through supportability and creative engagement skills
- Coordinated and executed events in collaboration with faculty fellows, showcasing adept organizational, management, and strong communication skills. This initiative not only fostered a sense of community but also facilitated invaluable resource access for first-year students.

## Volunteer Experience

**Web Developer** 09/2021 - 05/2022  
UBC BizHacks

- Maintained a website receiving ~500 visits/month by implementing an events calendar using CSS Sass ensuring a much more organized, faster, and maintainable front-end
- Streamlined effectiveness across the club by reinventing the event and membership system by independently developing a solution that integrated QR Codes to Sheets database with Google Apps Scripts

**Logistics Coordinator** 09/2021 - 04/2022  
Science Undergraduate Society UBC

- Orchestrated logistical aspects of the 2021 Science Undergraduate Society's Awards Night through effective planning and collaborative skills, ensuring a seamless execution of the event
- Effectively collaborated to manage nomination and application process in a tight timeline for 10-15 award categories with attention to detail